

Title (en)

AMPLIFIER WITH VARIABLE MATCHING CIRCUIT TO IMPROVE LINEARITY

Title (de)

VERSTÄRKER MIT VERÄNDERLICHER ANPASSSCHALTUNG FÜR ERHÖHTE LINEARITÄT

Title (fr)

AMPLIFICATEUR AVEC CIRCUIT D'ADAPTATION VARIABLE POUR AMÉLIORER LA LINÉARITÉ

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Application

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Abstract (en)

[origin: WO2011020112A1] Techniques for reducing distortion and improving linearity of amplifiers are described. In an exemplary design, an apparatus includes a driver amplifier, a variable matching circuit, and a power amplifier. The driver amplifier amplifies a first RF signal and provides a second RF signal. The variable matching circuit receives the second RF signal and provides a third RF signal. The power amplifier amplifies the third RF signal and provides a fourth RF signal. The variable matching circuit matches a fixed impedance at the output of the driver amplifier to a variable impedance at the input of the power amplifier in order to improve the linearity of the amplifiers. In an exemplary design, the power amplifier includes a first transistor (e.g., an NMOS transistor) of a first type, and the variable matching circuit includes a second transistor (e.g., a PMOS transistor) of a second type that is different from the first type.

IPC 8 full level

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